



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTER

# UTF-8 in the RIPE DATABASE

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The official languages of most of the RIPE NCC service region are not supported





## What work has already been done to support UTF-8?

- NWI-11 Internationalised Domain Names (IDN) (October 2020)
  - UTF-8 email address domains are converted to Punycode
- [Impact Analysis](#) to support UTF-8 (May 2022)
  - “UTF-8 ... will allow for proper internationalisation of names and addresses”
  - “Must ... not impede the use of the RIPE Database to facilitate cooperation”
  - “Must facilitate the work of the RIPE NCC in supporting our members and community”
- Charset Query Flag (-Z / -- charset) (May 2024):
  - Port 43 returns latin-1 by default, but query flag allows this to be changed
  - Can be used to return latin-1 if default ever changes
- Schema changes (September 2024):
  - All index tables for queries changed from latin-1 to UTF-8
  - RPSL object encoding is still latin-1
- [Code changes](#) that support UTF-8 in RPSL objects



## What encoding is used in existing interfaces in the RIPE Database?

Interface	Encoding
REST API Syncupdates Mailupdates RDAP NRTMv4	UTF-8
Port 43 NRTMv3 Dump Files	Latin-1



## What encoding is used in existing interfaces by other RIRs?

RIR	Update	Query (port 43)
AFRINIC	UTF-8	UTF-8
APNIC	Latin-1	Latin-1
ARIN	UTF-8	UTF-8
LACNIC	Latin-1	UTF-8
<b>RIPE</b>	<b>UTF-8</b>	<b>Latin-1</b>



## Should UTF-8 be supported in the RIPE Database?

- Support UTF-8 in RIPE Database objects?
  - Object types (e.g. Person, Role, Maintainer, Organisation)
  - Attribute types (e.g. Person, Role, Address, Description, Remarks)
- Should the default character set change to UTF-8?
  - Port 43
  - NRTMv3
  - Dump files



# Questions & Comments



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**THANK YOU!**